11/16/02

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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POLLUTION REPORT

I. HEADING

DATE: November 16, 2002

SUBJECT: **Roberto Clemente Mercury Spill Site, Chicago, Cook County, Illinois**

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POLREP #: POLREP #1 (Initial)

II. BACKGROUND

Response Authority:	CERCLA Emergency Response-PRP oversight
NPL Status:	Non-NPL
Site ID number:	Not Available
Latitude:	41°54'08"N
Longitude:	87°41'11"W
State Notification:	U.S. EPA assistance requested by CDOE
Start Date:	November 15, 2002
Completion Date:	TBD

III. SITE INFORMATION

A. Incident Category

CERCLA response to a mercury spill, several grams, in an active high school.

B. Site Description

1. Site location and background

The Roberto Clemente Mercury Spill (RCMS) site is located at 1147 N. Western Ave, in Chicago, Cook County, Illinois. The spill occurred in a classroom on the 7 th floor of the school in room 717. The school enrolls approximately 2,200 students and employs 152 faculty. The school is located on the southeast corner of the intersection of Division and Western Avenue.

The Clemente High School is a 345,000 square foot building consisting of eight floors, 3 stairwells and escalators. The room in which the initial spill occurred is located on the south central portion of the building.

According to school officials and faculty, at 8:30 a.m. on November 15, 2002, a substitute teacher noticed approximately six students in room 717 of the school playing with what appeared to be mercury. After informing a permanent staff member, the students were sent to the school clinic and the staff member attempted to clean up the mercury on her own. The school principal was informed of the situation by school staff at approximately 9:55 a.m. and immediately notified school system officials and emergency personnel. The students directly involved with the Mercury spill were sent to rooms 305 and 307 of the school and isolated. At approximately 10:45 a.m. Chicago Public School System (CPS) contractors and the Chicago Fire Department arrived at Roberto Clemente High School, they began taking air monitoring readings on the 7th floor. Based on air monitoring results, it was recommended that students in the exposed area be separated and the other students remain in their respective classrooms. At approximately 12:00 p.m. students from the 7th floor were evacuated to the auditorium on the 1st floor of the building. CPS contractors began screening students located in room 305 with a VM 3000 instrument for the presence of mercury. Students whose readings exceeded 0.5 $\mu g/m^3$ on there hands and shoes were decontaminated. Decontamination for all students took place in the mens bathroom across the hall from room 305. After decontamination the students were sent to room 301 to wait until CPS gave authorization for the students to be released. A total of 32 students and 1 faculty member were taken to area hospitals for treatment. It was later determined that the mercury was brought to the school by students in a 35mm film container and a lip stick container.

At approximately 2:30 p.m., the Chicago Department of the Environment (CDOE) requested assistance from the U.S. EPA. The U.S. EPA, ATSDR, and the Superfund Technical Assessment and Response Team (START) arrived at the site at approximately 3:30 p.m.

2. Description of threat/Site Inspection

On November 15, 2002, U.S. EPA, ATSDR, and START screened the school for the presence of mercury vapors using a Lumex, which can detect mercury vapors down to 1 nanograms per cubic meter (ng/m^3). According to the Lumex, there were three areas on the 7th floor that needed remediation. Lumex readings were also elevated in portions of the 4th floor and in a classroom on the 3rd floor. Later it was confirmed with school administrators that prior to class, students met in the 4th floor cafeteria for breakfast. While mercury levels on the 4th floor were above normal background levels, they were later determined to below the action level of 1 micrograms per cubic meter ($\mu g/m^3$). Two personal items were found in room 305 on the 3rd floor with levels of mercury exceeding the action level.

IV. SITE INFORMATION

A. Situation

1. Response activities to date

On November 15, 2002, the Chicago Department of the Environment (CDOE) requested U.S. EPA assistance in responding to a mercury spill at Roberto Clemente High School. U.S. EPA, ATSDR, and START arrived on-site approximately 3:30 p.m. and met with Terry Sheahan of CDOE and Dr. Joel McCullough of Chicago Department of Public Health (CDPH). Students and faculty began leaving Clemente at 4:40 p.m. Air monitoring for mercury vapors with a Lumex was conducted in the hallways and outside the room where the spill occurred. The survey demonstrated at least 3 areas of concern on the 7th floor. Readings ranged from 0.5$\mu g/m^3$ to 4.0 $\mu g/m^3$. Starting at 1900 hours, the CPS contractors Carnow, Conibear and Associates(CCA) and GSG Environmental Inc.(GSG) began to characterize every floor in the building. CCA contractors used a Lumex on the 7th and 8th floors. GSG used a Jerome Mercury Vapor Analyzer (Jerome), which can detect mercury vapors down to 3 $\mu g/m^3$, on floors 1 through 6. USEPA and START checked the stairwells and escalators on every floor with a Lumex to confirm that the mercury problems were confined to the 7th and possibly the 4th floor. Because students that were on the 7th floor were evacuated to the auditorium, the auditorium was screened for mercury vapors as a precaution. The highest readings surveyed in the auditorium were 0.005$\mu g/m^3$.

After the 7th floor was characterized for the presence of mercury vapors, RES Environmental Services, the

CPS cleanup subcontractor decontaminated the area. Three areas on the 7th floor were decontaminated: 1) Room 717 where the spill occurred, 2) the hallway on the east end of the 7th floor were mercury vapors as high as 2 $\mu g/m^3$ were detected, and 3) Room 706 where the teacher who attempted the clean up of the spill had visited and elevated levels of mercury vapor were detected.

Clean up of the hallway was conducted using Hg-X mercury vapor absorber to scrub the hallway floors. The two rooms were cleaned by first scrubbing the furniture with Hg-X, removing it from the room, and then removed the carpeting in each room. Carpeting was sealed in plastic bags and disposed of in 55-gallon drums. After carpeting was removed, the floor of the room was scrubbed with Hg-X and the furniture was returned to the room. After decontamination of the rooms was complete, the rooms were ventilated using negative air pressure blowers to remove any residual airborne vapors from the rooms. On November 16, 2002, U.S. EPA, START, and RES surveyed 7th floor areas that RES has decontaminated using a Lumex. Readings in hallway were below the action level of 1 $\mu g/m^3$.

Several book bags located in room 305 belonging to students directly involved with the mercury spill were surveyed with a Lumex. The readings of the book bag were 5.6 $\mu g/m^3$ and 2.4 $\mu g/m^3$. These book bags were then inventoried by CCA and properly disposed of by RES in a 55-gal drum.

After learning more of the spill chronology on November 15th it was determined that the Clemente High School recreational building should be surveyed. This was a precautionary measure in case of contamination reaching the building, which is a two story structure containing the gym and pool located across Division Street from the main school building. The recreational building is connected to the main building by an elevated walkway. The highest readings taken from the gym were in the south stair well at 0.045 $\mu g/m^3$.

B. Planned Removal Activities

1) CCA placed 8 confirmation Gillian pumps on various locations on the 7th floor and in the school lobby on November 16, 2002
2) A follow-up investigation with students on the source of the mercury by school administrators
3) A possible mercury vapor screening of the lockers of the students directly involved with the spill
4) Follow -up with area hospitals will be done by CDPH and/or ATSDR

C. Other Information

1) All mercury contaminated items were disposed in approximately ten 55-gallon drums.
2) Urine sampling is being provided by CPS on November 18th for students and faculty to get checked for any contamination from mercury.
3) At the request of Clemente Principal Irene DaMota , the U.S. EPA will tape a video at Clemente H.S. to be broadcast over the school's closed circuit television for the students about the dangers of mercury and the clean-up activities conducted this weekend.
4) Many joint confirmation screenings were conducted between U. S. EPA, START, and CPS contractors.
5) The concert scheduled in the auditorium for November 16, 2002 went on as planned and normal classes resumed on November 18, 2002.

E. Estimated Costs

	CEILING	COSTS TO DATE
START	$ TBD	$ Not Available
Total	$ TBD	$ Not Available